# Cleaner public transit is key to climate action

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## Body

This summer's Intergovernmental Panel on Climate Change (IPCC) report was unequivocal: Climate change is widespread, rapid and intensifying. We've seen its devastating effects. Heatwaves hitting Quebec and B.C., droughts devastating the Prairies, and wildfires across B.C. and northern Ontario. For the first time in years, cities like Ottawa and Toronto received smog alerts, and for much of the summer, Calgary sat under a lung-destroying haze of toxic smoke.

This year, the challenge of climate change formed a vital ballot box issue for many Canadian voters.

The emphasis placed on climate action by all federal parties throughout the election is encouraging, but the lack of attention on public transit as a primary solution to the climate problem is not.

In Canada, the transportation sector accounts for 25 per cent of our greenhouse gas emissions.

The only way to permanently reduce pollution from transportation is to get people out of their cars and into fast, frequent and convenient transit - faster trains and buses, and more connected mobility in general.

Since the pandemic, we've seen a significant decline in the use of public transit and an increase in car use and congestion. That's with most white-collar workers still working from home much of the time.

Getting people out of cars isn't politically popular, but it's necessary.

Public transit more efficiently transports a greater number of people, which dramatically reduces congestion. Addressing transportation pollution also requires electrifying these systems. A quarter of Canada's air pollution comes from the millions of cars, trucks, planes, trains and diesel buses that use fossil fuel.

Subways and streetcars are already electric, but the TTC produces enough emissions daily from its diesel bus engines to have been considered a "heavy emitter" under the previous Ontario Liberal government's carbon cap-and-trade program.

Combustion is a terrible energy system when it comes to moving things. The most modern engines operate at no more than 40 per cent energy efficiency in vehicles, and that figure is often far lower in buses, trucks and SUVs, which can operate as low as 15 per cent. Electricity is more efficient.

Electric and hydrogen-electric cars, trucks and buses can get over 60 per cent (and often above 70 per cent) efficiency across a range of driving conditions. Studies by the Canadian Urban Transit Research and Innovation Consortium (CUTRIC) show that electrifying transit reduces pollution by 95 per cent compared with diesel equivalents in green-grid environments.

A clean transit system moves a higher number of people efficiently, while generating economic growth and job creation. A CUTRIC assessment performed in 2020 showed there are already 77,000 Canadians working full time for manufacturers and suppliers of zero-emission buses and charging systems.

We predict that every $1 billion invested in "green" transit creates an additional 200,000 new jobs, and helps retain many more in the transit and utility sectors. For every $1 billion invested in transit, there is potential to generate $1.5 billion in economic activity.

In its new mandate, re-elected Liberals must push forward on this file as part of post-pandemic recovery to meet and exceed their current commitment of 5,000 zero-emission buses (ZEBs).

Cities and transit agencies across Canada are prepared to deploy 10- to 15-year strategies (which is what it will take) to fully transition their fleets to the more complex electrified systems of the future. Many agencies have already launched electric bus standardization programs, and they've lined up to purchase hundreds of more vehicles in the next few years.

According to the CUTRIC Canadian ZEB Database, a total of 2,350 electric and hydrogen electric buses are promised, purchased or deployed in Canada today.

Many of the components in those vehicles or allied energy systems are designed or partially made in Canada. Vancouver-based Ballard makes hydrogen fuel cells; Mississauga-based Cummins specializes in electrolyzers that produce "green" hydrogen; and other companies like New Flyer Industries, Nova Bus, Lion Electric Co. and Grande West make electric bus products in Canada.

Electrified transit gets pollutants out of the air, supports local job growth and helps create a future full of fast, efficient and convenient transit that ultimately gets people out of their cars.

For a Liberal government looking for a post-election win, this is the right place to start.

Josipa Petrunic is president and CEO of the Canadian Urban Transit Research and Innovation Consortium.

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